LUMINA

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Lumina LS Sedan

Lumina LTZ Sedan

Lumina and the Marketplace

Chevrolet Lumina is one of the best selling vehicles in the midsize sedan market with an impressive 232,888 unit sales volume for the 1997 Model Year. Loaded with a high level of standard features, roomy six-passenger seating and sporty styling, Lumina appeals to family-oriented shoppers looking for value and one less thing to worry about.

Competitors

- Ford Taurus
- Dodge Intrepid
- Chrysler Concorde

Awards

- *Kiplinger's Personal Finance Magazine (12/97)* — First for Safety, Cars $13,000–$18,000

Demographics

(primary buyer: 35–54 years)

- Median Age: 44 Years
- Median Income: $60,000
- Married: 79%
- College Graduate: 40%
- Purchaser: Male — 46%; Female — 54%
- Principal Driver: Male — 32%; Female — 68%
- Children in Household: 62%

(secondary buyer: 65+ years)

- Median Age: 73 Years
- Median Income: $30,000
- Married: 62%
- College Graduate: 20%
- Purchaser: Male — 64%; Female — 36%
- Principal Driver: Male — 40%; Female — 60%
- Children in Household: 11%

New for 1999

Exterior/Structural

- Medium Auburn Nightmist Metallic replaces Deep Purple Metallic exterior paint treatment (page 9).

Models and Trim Levels

Lumina Sedan

Lumina Sedan provides these standard features:

Interior

- Next Generation driver and right front-passenger air bags*
- Air conditioning with CFC-free refrigerant
- Power door locks
- Tilt-Wheel™ steering column
- Electronically tuned AM/FM stereo with four extended-range speakers
- Delayed entry/exit interior lighting with theatre dimming
- Child security rear-door locks
- Cloth 60/40 split-bench front seat
- Rear-seat safety belt child comfort guides
- Six-passenger seating
- Two cup holders (with 60/40 front seat)
- Rear-seat heat ducts
- Change Oil Soon indicator
- Scotchgard™ protection
- Intermittent windshield wiper system
- Tinted glass with Solar-Ray windshield and rear glass.

Exterior

- Daytime Running Lamps with Automatic Exterior Lamp Control
- Two-sided galvanized steel body panels (except roof)
- Color-keyed body-side moldings
- Dual, black sport mirrors (left-hand remote).

Functional

- 3100 V6 engine with 160 horsepower
- Electronically controlled 4-speed automatic overdrive transmission (4T60-E)
- Power front disc/rear drum brakes
- Power rack-and-pinion steering
- 4-wheel independent suspension
- Battery-rundown protection
- 100,000-mile platinum-tip spark plugs†
- 150,000-mile extended-life engine coolant†
- Low engine oil and coolant level warning lights
- 15-inch steel wheels with bolt-on wheel covers
- P205/70R-15 touring tires
- PASS-Key II theft-deterrent system
- Stainless-steel exhaust system.

*Always use safety belts and proper child restraints, even with Next Generation air bags. See the owner's manual for more safety information.

†Maintenance needs vary with different uses and driving conditions. See owner's manual for more information.

Lumina LS Sedan

The LS Sedan adds:

Interior

- Power windows with driver's Express-Down feature
- Electronic speed control
- Electronically tuned AM/FM stereo with cassette player, automatic tone control, speed-compensated volume and TheftLock security feature
- Custom Cloth 60/40 split-bench front seat
- Gauge package with tachometer and engine coolant temperature gauge
- Luggage-area cargo net.

Exterior

- Dual, black electric remote sport mirrors.

Functional

- 4-wheel antilock brake system (ABS)
- 16-inch aluminum wheels
- P225/60R-16 touring tires.

Lumina LTZ Sedan

LTZ Sedan adds:

Interior

- Custom cloth bucket seats with center console
- LTZ badging on the instrument panel and embroidered on the rear seatback.

Exterior

- Unique front and rear fascias
- Dual, body-color electric remote sport mirrors
- LTZ badging on the decklid
- Rear spoiler and distinctive taillamps.

Functional

- 3800 Series II V6 SFI engine with 200 horsepower
- Electronically controlled 4-speed automatic overdrive transmission (4T65-E)
- P225/60R-16 Goodyear Eagle RS-A performance tires
- 4-wheel disc brake system with ABS
- Ride and Handling Suspension
- Dual outlet exhaust.

Lumina Police Package

The Lumina Police Package includes Lumina Sedan standard features and:

Interior

- Front bucket seats
- Rubber trunk mat.

Functional

- 3800 Series II V6 SFI engine with 200 hp
- Electronically controlled 4-speed automatic overdrive transmission (4T65-E)
- 4-wheel disc brake system with ABS
- Ride and Handling Suspension
- 105 amp alternator
- 690 cca battery
- Heavy-duty cooling — coolant-to-oil engine oil cooler and air-to-oil transmission oil cooler
- Gauge package
- Heavy-duty rear-seat cushion and trim
- "Off" switch for speedometer light and radio display
- Digitally certified speedometer (1 mph increments)
- Top-speed fuel cutoff at 130 mph
- P215/65R-15 SBR H-rated blackwall tires
- Full-size spare tire.

The Chevrolet Sedan Family

Every Chevrolet sedan is a quality-built car owners can depend on to be a trusted member of their family — year in, year out.

GM has long been a leader in powertrain performance, and today's Chevy sedans inherit this technology, along with a comprehensive safety package designed to add peace of mind.

Besides offering outstanding value at an affordable price, Chevrolet sedans offer low-maintenance features that make them easy for customers to care for.

All Chevrolet sedans are covered by a comprehensive owner protection program that includes a no-deductible, 3-year/36,000-mile limited warranty and 24-Hour Roadside Assistance.

Chevrolet offers five distinctly styled sedans to meet the needs of any age group, lifestyle and budget.

LUMINA — The well-equipped, affordable Chevrolet sedan for those who want comprehensive standard safety features with 6-passenger roominess, comfort and one less thing to worry about.

MALIBU — The 5-passenger centerpiece of the Sedan family, designed to appeal to current owners, as well as to those who drive midsize imports.

PRIZM — The affordable, import alternative 5-passenger sedan for those who want solid dependability and segment leading safety options.

CAVALIER — The low-priced, 5-passenger Chevy sedan for young, value-conscious buyers.

METRO — The low MSRP, high MPG,* 4-passenger economy sedan for young, first-time buyers seeking low-cost transportation and new-car peace of mind.

This selection of sedans allows Chevrolet to carry buyers through all phases of their lives.

* Projected 1999 EPA estimated MPG 41 city/47 highway.

Safety and Security

With a long history of setting automotive safety milestones, GM is a world leader in safety research, development and testing. The 1999 Lumina exemplifies that dedication, providing a comprehensive system that emphasizes crash avoidance, occupant protection and security features.

Crash Avoidance Features

- **DAYTIME RUNNING LAMPS (DRL)** turn on automatically when the ignition is on and the parking brake is disengaged, to help increase Lumina visibility to other drivers. The DRL system runs the headlamps at a reduced intensity compared to regular headlamp operation.
- **AUTOMATIC EXTERIOR LAMP CONTROL** works with Daytime Running Lamps and automatically activates the headlamps and all other exterior lamps to full intensity when light-sensitive sensors detect darkness for more than 20 seconds. The exterior lamps will shut off when the ignition is turned off.
- **4-WHEEL ANTILOCK BRAKE SYSTEM (ABS)**, standard on Lumina LS and LTZ and optional on Lumina Sedan, automatically adjusts brake pressure to the front and rear wheels during hard braking situations, helping the driver maintain steering control by reducing wheel lockup (see page 12 for more information).
- **BRAKE/TRANSMISSION SHIFT INTERLOCK**, standard on Lumina, requires drivers to depress the brake pedal to shift out of Park.
- **CENTER-MOUNTED HORN** is easily activated by pressing anywhere on the steering wheel hub pad.

Occupant Protection Features

Standard occupant protection features:

- **NEXT GENERATION DRIVER AND RIGHT FRONT-PASSENGER AIR BAGS*** inflate with reduced speed and deployment force, helping to reduce the risk of deployment injury. However, even with Next Generation air bags, never place a rear-facing infant restraint in the front seat of any vehicle with an active air bag.
- **THREE-POINT SAFETY BELT SYSTEM** helps restrain outboard passengers by distributing forces to help minimize injury.
- **ADJUSTABLE FRONT SHOULDER SAFETY BELT GUIDE LOOPS** offer several positions for optimum safety belt comfort.
- **REINFORCED STEEL SAFETY-CAGE CONSTRUCTION** surrounds occupants with a cocoon-like system of structural components. This structure consists of reinforced roof rails, door pillars and side door beams, which are designed to minimize intrusion into the passenger compartment in shallow-angle side impacts.
- **FRONT AND REAR CRUSH ZONES** are designed to deform in a controlled manner in a collision to absorb impact energy in order to reduce intrusion into the passenger compartment.
- **ENERGY-ABSORBING STEERING COLUMN AND INSTRUMENT PANEL** are designed to absorb collision impact, to help reduce injury to the driver's body.
- **CHILD SECURITY REAR-DOOR LOCKS** when engaged, prevent the rear doors from being opened from the inside.
- **REAR-SEAT SAFETY BELT CHILD COMFORT GUIDES** adjust the angle of the safety belt crossover, making them more comfortable for older children or small adults riding in the backseat.
- **DUAL-MODE SAFETY BELT RETRACTORS**, on rear outboard safety belts, allow child seats to be secured without hardware or clips.†
- **POWER WINDOW LOCKOUT** when activated, gives the driver complete control over window operation (standard on Lumina LS and LTZ, optional on Lumina Sedan).

*Always use safety belts and proper child restraints, even with Next Generation air bags. See owner's manual for more safety information.

† See owner's manual child safety seat instructions for more safety information.

Security Features

- **BATTERY-RUNDOWN PROTECTION** automatically shuts off interior lights in case they are accidentally left on with the engine off for 10 minutes. And, if the ignition is left off for more than 24 days, the system cuts power to accessories such as the clock and sound system settings, helping prevent battery rundown.
- **PASS-KEYPASS II THEFT DETERRENT SYSTEM,** standard on all models, allows the ignition and fuel systems to be activated only when the computer reads the resistance pellet on the key. This means only the correct specially coded key starts each Lumina.
- **REMOTE HOOD RELEASE** is standard on all Lumina models and helps prevent unauthorized access to the engine compartment from outside the vehicle.
- **LASER-ETCHED VEHICLE IDENTIFICATION NUMBER** (VIN) plate makes forgery more difficult than with stamped VIN plates.

Interior Features

Comfort/Convenience Features

Standard features:

- **60/40 SPLIT-BENCH FRONT SEAT** with full foam construction allows Lumina to provide comfortable seating for up to six passengers. It includes the added convenience of a center armrest with fold-out cup holder and storage compartment. Models equipped with this seat configuration also feature a pull-out cup holder in the instrument panel (not available on LTZ).
- **AIR CONDITIONING** uses CFC-free refrigerant. The air conditioning compressor is automatically activated to help avoid window "flash fogging" when the defrost mode is selected.
- **POWER DOOR LOCKS** secure all doors at the touch of a button.
- **CHANGE OIL SOON INDICATOR** illuminates when it's time to change the engine oil. This system also is sensitive to driving habits and conditions. Therefore, the light may come on as early as 2,000 miles or sooner in harsh driving conditions.
- **DELAYED ENTRY/EXIT INTERIOR LIGHTING WITH THEATRE DIMMING** slowly dims interior lights after the doors are closed (instead of shutting off abruptly).
- **AUXILIARY LIGHTING** includes dome, dual reading, glove box and trunk lights for convenience.
- **INTEGRATED REAR-SEAT HEAT DUCTS** maximize rear-passenger comfort.
- **REAR-SEAT SAFETY BELT CHILD COMFORT GUIDES** adjust the angle of safety belt crossover, which make wearing safety belts more comfortable for older children and small adults riding in the backseat.
- **VARIABLE INTERMITTENT WINDSHIELD WIPERS** allow the driver to match wiper speed with weather conditions.
- **TILT-WHEEL™ STEERING COLUMN** helps tailor the wheel to the most comfortable, individualized driving position.
- **SCOTCHGARD™ PROTECTION** helps protect cloth seating surfaces, door panel trim and floor carpeting from stains and makes cleanups easy.
- **COVERED VISOR VANITY MIRRORS** are standard for both the driver and front passenger. And, on LS and LTZ models, the front-passenger mirror illuminates for nighttime use.
- **RADIO AND HVAC CONTROLS** are easy to reach and operate, even while wearing gloves.
- **GLOVE BOX** provides ample storage for the owner's manual and other small items.
- **MAP POCKETS AND SEATBACK STORAGE POCKETS** easily hold maps or other small items.

Optional features:

- **ONSTAR COMMUNICATIONS SYSTEM** (wiring accommodations included on all Lumina models) gives 24-hour access to the OnStar center which offers route support, roadside assistance and convenience services — all through the dealer-installed cellular phone.
- **REMOTE KEYLESS ENTRY SYSTEM** transmits a uniquely coded, high frequency radio signal to lock or unlock doors and unlock the trunk from up to 30 feet away.
- **DRIVER AND FRONT-PASSENGER TEMPERATURE CONTROLS** (LS and LTZ models) allow the driver and front passenger to vary temperature levels to suit

individual preferences.

- **STEERING WHEEL RADIO CONTROLS** (LS and LTZ models) feature Play, Mute, Volume, Seek, AM/FM and Preset buttons for convenience at the fingertips. This feature also includes a leather-wrapped steering wheel.
- **DEEP-TINTED POWER SLIDING SUNROOF WITH VENT FEATURE** (LS and LTZ models) opens at the touch of a button and includes a sunshade to protect the vehicle's interior from sun-fading.
- **POWER WINDOWS** (standard on LS and LTZ models and optional on Lumina Sedan) for added convenience; the driver's Express-Down feature allows lowering of the driver window with a single touch.
- **POWER WINDOW LOCKOUT FEATURE** (standard on LS and LTZ models and included with optional power windows on Lumina Sedan) allows the driver to enable or prevent passengers from operating windows.
- **6-WAY POWER DRIVER SEAT** allows precise seat adjustment for maximum comfort.
- **ELECTRONIC SPEED CONTROL** also includes resume and accelerate features.
- **ELECTRIC REAR-WINDOW DEFOGGER** clears the rear window quickly and easily.
- **CENTER CONSOLE** (with optional front bucket seats) houses a cup holder, driver or front-passenger armrest and storage area for tapes, cellular phones, etc.
- **LUGGAGE-AREA CARGO NET** (standard on LS and LTZ models and optional on Lumina Sedan) helps secure groceries and other small cargo in the trunk.

Sound Systems

- **ELECTRONICALLY TUNED AM/FM STEREO** with seek-scan, digital clock and extended-range front and rear speakers is standard on Lumina Sedan.
- **ELECTRONICALLY TUNED AM/FM STEREO WITH CASSETTE PLAYER**, TheftLock security feature, speed-compensated volume, automatic tone control, seek-scan and digital clock is standard on LS and LTZ models and optional on Lumina Sedan. It includes premium coaxial front and rear speakers.
- **ELECTRONICALLY TUNED AM/FM STEREO WITH COMPACT DISC PLAYER**, TheftLock security feature, speed-compensated volume, automatic tone control and digital clock is optional on all models. It includes premium coaxial front and rear speakers.

Uplevel cassette and compact disc player systems feature:

- **SPEED-COMPENSATED VOLUME** automatically regulates the volume of the audio to help overcome road noise.
- **AUTOMATIC TONE CONTROL** allows the listener to choose preset bass and treble settings designed for classical, news, rock, pop, country/western and jazz stations.
- **THEFTLOCK SECURITY FEATURE** helps prevent theft by making the unit non-functional if removed from the instrument panel.
- **OPTIONAL STEERING WHEEL RADIO CONTROLS** feature Play, Mute, Volume, Seek, AM/FM and Preset buttons for added convenience.

SEATS

Lumina Sedan

- Cloth 60/40 split-bench front seat with center storage arm rest.

Lumina Sedan and LS

- Custom Cloth 60/40 split-bench front seat with center storage armrest (Standard on Lumina LS, optional on Lumina Sedan).

Lumina LS

- Leather seating surfaces on 60/40 split-bench front seat with center storage armrest (optional on Lumina LS).

Lumina LTZ

- Custom Cloth front bucket seats with center storage console and cup holder.

- Front bucket seats with leather seating surfaces, center storage console and cup holder (optional on Lumina LTZ).

NOTE: Lumina LTZ has an embroidered "LTZ" graphic on the rear center seatback.

Other seating features:

- **MANUAL FOUR-WAY SEAT ADJUSTERS AND ADJUSTABLE HEAD RESTRAINTS** provide excellent driver support and comfort.
- **SIX-WAY POWER SEAT ADJUSTER**, optional on all models for added driver convenience.
- **"FRENCH-STITCHED" SEAMS** on cloth upholstery create a clean, uplevel and contemporary appearance.

INTERIOR COLORS

Cloth colors:

- Neutral
- Medium Blue
- Medium Gray
- Ruby Red.

Leather seating surface colors:

- Medium Gray
- Neutral.

Exterior/ Structural Features

Exterior Features

Lumina was designed to have a completely integrated, one-piece look from the front to the rear. Highlighting the Lumina exterior are the following features:

- **COMPOSITE HALOGEN HEADLAMPS** provide a high level of illumination.
- **WIRE-WRAPPED RADIO ANTENNA** reduces wind noise.
- **16.6-GALLON FUEL TANK** (approx.) allows a lengthy cruising range between fill-ups.
- **EASY-OPEN GAS CAP** is spring-loaded for quick opening and closing. It also creates a tight vacuum seal, and works with the Enhanced Evaporative Emissions Control System, part of On-Board Diagnostics Second Generation (OBD II).
- **FUEL SPLASH-BACK PROTECTION** is provided by a small plastic ball in the filler neck tube that rises with the fuel level in the tank as it is being filled.
- **STAINLESS-STEEL EXHAUST SYSTEM** includes pipes, catalytic converter and muffler that resist corrosion and thereby reduce long-term cost of ownership.
- **CORROSION PROTECTION** has been incorporated throughout the vehicle. All exterior panels, except the roof, use two-sided galvanized steel.
- **BLACK REMOTE SPORT OUTSIDE REARVIEW MIRRORS** (standard on Lumina Sedan) or dual black left-hand remote electric mirrors (standard on LS and optional on Lumina Sedan).
- **LTZ EXTERIOR TRIM** includes unique front and rear fascias, special taillamps, sport-styled rear spoiler, LTZ insignias on the trunk, dual body-color electric remote sport mirrors, dual-outlet exhaust and 16-inch machined-face aluminum wheels.

Structural Features

The Lumina body structure includes features designed to contribute to a quiet interior that has minimal squeaks and rattles. Helping achieve these effects are:

- **FIVE LATERAL CROSS MEMBERS** providing structural support and rigidity.
- **HYDRO-FORMED CROSS-CAR BEAM** that serves as the backbone of the instrument panel.
- **CLOTH-COVERED FIBERGLASS HEADLINER** with sound-absorbing qualities.
- **SANDWICH-STEEL CONSTRUCTION** (metal/plastic/metal) throughout the body and interior structure.

Exterior Paint

Standard basecoat/clearcoat paint on Lumina resists fading and provides a high gloss shine for long-lasting exterior beauty. The clearcoat system is formulated to help reduce the effects of acid rain and other environmental damage. Clearcoat finish is used with all colors — solids and metallics. The paint process builds up six layers of protection on every new Lumina. This six-layer process includes:

- **ZINC-PHOSPHATE COATING** is applied to the bare metal.
- **TOTAL IMMERSION PHOSPHATE ELECTRODEPOSITION PRIMER (ELPO)** process is applied to the first layer of primer/paint. Electric current is applied to the body structure and panels while they are submerged in the paint bath to ensure complete coverage, even in hard-to-reach areas.
- **SPRAYED-ON PRIMER** surface further ensures corrosion resistance.
- **ANTI-CHIP PRIMER** is applied to lower body panel areas to protect against paint-chipping.
- **BASECOAT IN BODY COLOR** provides a deep, rich, uniformed color.
- **CLEARCOAT** provides a high luster and high level of protection.

Paint Colors

NEW Paint Colors For '99:

- Medium Auburn Nightmist Metallic.

Other colors:

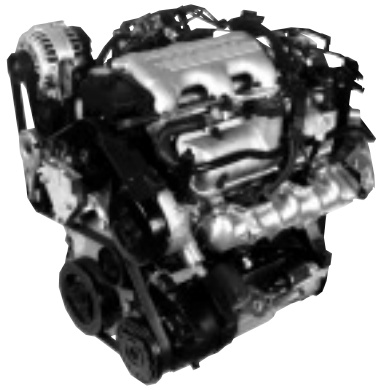
- Black
- Medium Regal Blue Metallic
- Navy Blue Metallic
- Light Driftwood Metallic
- Dark Jade Green Metallic
- Light Pewter Metallic
- Dark Carmine Red Metallic
- Bright White.

Design and Manufacturing

Prior to the introduction of the new body style in the 1995 model year, Lumina and its coupe counterpart, Monte Carlo, had the most extensive pre-launch research conducted for new Chevrolet models up to that time. And, the Lumina design was driven by feedback from that research, including:

- **CUSTOMER CLINICS**. More than 2,000 people provided input in focus groups regarding their concerns about safety, comfort and convenience, styling, price and value.
- **CHEVROLET DEALER AND CUSTOMER INPUT**. 120 changes were made to the original design due to input from dealer advisory groups and customers. As a result, Lumina is designed, inside and out, to meet the needs of midsize sedan buyers. And, that design is carried through the manufacturing process at the General Motors assembly plant in Oshawa, Ontario, Canada.

Engines



3100 V6 SFI Engine (L82)

All Lumina Sedan and LS models are equipped with a standard 60-degree 3100 V6 engine with Sequential Fuel Injection (SFI). SFI delivers precise amounts of fuel through injectors at each cylinder, optimizing fuel efficiency, quick start-ups in all weather conditions and smooth acceleration.

Power ratings for the 3100 V6 are:

- **160 HORSEPOWER** at 5200 rpm
- **185 LB.-FT. TORQUE** at 4000 rpm.

3100 V6 SFI engine (L82) technical features:

- **ROLLER ROCKER ARMS** act as roller bearings to reduce noise and friction between camshaft lobes and contacting surfaces of the rocker arms.
- **"HIGH RESOLUTION" IGNITION SYSTEM** produces a fast ignition and smooth idle.
- **"ASSEMBLED" CAMSHAFT** is made up of individual lobes permanently locked onto a weight-saving tube, yielding a stable idle and impressive durability.
- **DIE-CAST ALUMINUM STRUCTURAL OIL PAN** is "cross-bolted" to the main bearing caps to supply added strength and rigidity while reducing noise.
- **MASS AIRFLOW SENSOR** renders precise air metering and control of the air-to-fuel ratio.
- **CHANGE OIL SOON INDICATOR** illuminates when it's time to change the engine oil. This system also is sensitive to driving habits and conditions. Therefore, the light may come on as early as 2,000 miles or sooner in harsh driving conditions.

- **OIL LEVEL AND COOLANT SENSORS** alert the driver that fluids are low, helping avoid engine damage.
- **ON-BOARD DIAGNOSTICS SECOND GENERATION** (OBD II) is combined with the Powertrain Control Module (PCM) to monitor fuel delivery, ignition timing and the emissions system, helping detect deterioration or malfunction.
- **TORQUE AXIS ENGINE MOUNT SYSTEM**, consisting of two fluid-filled engine and transmission mounts that "absorb" or "dampen" engine vibrations, contribute to a solid, stable ride with reduced engine noise and virtually unnoticeable idle.
- **LOW MAINTENANCE** due to platinum-tip spark plugs which can go up to 100,000 miles before the first scheduled replacement* and extended-life engine coolant.that lasts up to five years or 150,000 miles, whichever comes first.*

*Maintenance needs vary with different uses and driving conditions. See owner's manual for more information.

3800 Series II V6 Engine (L36)

The 90-degree 3800 Series II V6 engine is standard on LTZ.

Power ratings for the 3800 V6 engine are:

- **200 HORSEPOWER** at 5200 rpm
- **225 LB.-FT. OF TORQUE** at 4000 rpm.

3800 Series II V6 SFI engine (L82) technical features:

- **BROAD TORQUE BAND** for powerful acceleration, which is usually desired during stop-and-go city driving.
- **OVERHEAD VALVE (OHV) DESIGN** provides plenty of low-speed and mid-range torque for maneuvering in heavy traffic situations.
- **HIGH PERFORMANCE PUSHROD VALVETRAIN** allows the Series II engine to rev to 6000 rpm, making it competitive with multi-valve overhead camshaft (OHC) designs.
- **FEWER PARTS THAN AN OVERHEAD CAM ENGINE** with lighter-weight valves, springs and spring caps, contributing to increased mechanical stiffness and allowing high maximum rpm capacity and impressive horsepower.
- **SYMMETRICAL PORTS AND COMBUSTION CHAMBERS** provide uniform combustion in all cylinders for smooth engine performance.
- **SEQUENTIAL FUEL INJECTION** (SFI) delivers exact amounts of fuel through injectors at each cylinder, optimizing fuel efficiency, quick start-ups in all weather conditions and smooth acceleration.
- **ON-BOARD DIAGNOSTICS SECOND GENERATION** (OBD II) is combined with the Powertrain Control Module (PCM) to monitor fuel delivery, ignition timing and the emissions system, to help detect deterioration or malfunction.
- **DUAL ELECTRONIC SPARK CONTROL** (ESC) sensors detect "knock" in all cylinders and drive the PCM coolant and instrument panel gauges for greater precision.
- **REFINED AIR MANAGEMENT** with a glass-reinforced nylon composite intake manifold and air induction system provides a linear acceleration curve for even performance throughout the driving range.
- **TUNED-FOR-PERFORMANCE THROTTLE BODY** features a large inlet and progressive cam and cable linkages for enhanced engine airflow and performance.
- **DIRECT ACCESSORY MOUNTING** of the power steering pump, alternator bracket and other brackets and tensioners reduce engine noise and vibration.
- **LAMINATED OIL PAN** is designed with a special gasket, integrated baffle and rear crankshaft seal carrier to help reduce noise and improve seals.
- **QUIET EXHAUST SYSTEM**, thanks to a cast-iron left manifold, insulated cross-over pipe and air gap take-down pipe.
- **CHANGE OIL SOON INDICATOR** illuminates when it's time to change the engine oil. This system also is sensitive to driving habits and conditions; therefore, the light may come on as early as 2,000 miles or sooner in harsh driving conditions.

- **EASY AND CLEAN OIL SERVICING** with convenient under-the-hood access and extended funnel-like oil-filling cap.
- **LOW MAINTENANCE** due to platinum-tip spark plugs which can go up to 100,000 miles before the first scheduled replacement* and extended-life engine coolant.that lasts up to five years or 150,000 miles, whichever comes first.*

*Maintenance needs vary with different uses and driving conditions. See owner's manual for more information.

TRANSMISSIONS

4T60-E 4-SPEED AUTOMATIC OVERDRIVE TRANSMISSION

The 4T60-E 4-speed electronically controlled automatic transmission has a wide range of gear ratios, enhancing performance and fuel economy on Lumina and Lumina LS.

Operation of the 4T60-E transmission is synchronized and integrated with the performance of the 3100 V6 engine, all through the Powertrain Control Module (PCM). The synchronized operation produces smooth shift quality. The PCM also monitors environmental factors, such as altitude and temperature, to create a more seamless link between engine, transmission and vehicle.

Additional 4T60-E features:

- **ELECTRONICALLY CONTROLLED CONVERTER CLUTCH** (EC3) varies the clutch capacity. Benefits include improved driveability.
- **2.92:1 FIRST GEAR RATIO** provides high torque multiplication for initial acceleration.
- **0.70:1 FOURTH GEAR OVERDRIVE** reduces wear and engine rpm at cruising speeds, helping increase fuel economy.
- **TEMPERATURE SENSOR** allows the transmission to compensate for severe operating conditions such as trailer-towing or climbing steep grades.
- **CAST-ALUMINUM SIDE COVER** provides extra structural rigidity, heat dissipation and low noise and vibration.
- **LONG-LIFE AUTOMATIC TRANSMISSION FLUID** — has a fluid change interval of 100,000 miles.* This can have an important environmental impact since people will dispose of less transmission fluid.

*Maintenance needs vary with different uses and driving conditions. See the owner's manual for more information.

4T65-E 4-SPEED AUTOMATIC OVERDRIVE TRANSMISSION

The 4T65-E 4-speed electronically controlled automatic transmission is designed to handle high performance levels and is standard in Lumina LTZ models equipped with the 3800 Series II V6 engine.

4T65-E features include:

- **DUAL-PHASE SPROCKET** drives two half-width chains, which rotate 180 degrees out of phase, causing the gear noise generated by each chain to "cancel out" one another.
- **FAMILY OF ELECTRONIC CONTROLS** that:
  - Protect against over-revving the engine in low-range gears.
  - Monitor changes in driving conditions and adjust shift quality, when necessary, for overall smooth shifting.

Suspension

Lumina Sedan and LS models feature a standard 4-wheel independent Soft-Ride Suspension that is specially tuned to provide a comfortable ride, plus responsive and predictable handling. The suspension also is tuned to maximize the tight, solid body structure. This 4-wheel independent suspension features:

- **32MM FRONT AND 16MM REAR STABILIZER BAR** to reduce vehicle body lean while turning.
- **MACPHERSON STRUTS HAVE SPECIALLY TUNED DEFLECTED DISC SHOCK VALVING** at all four corners for a smooth ride.
- **VARIABLE-RATE COIL SPRINGS** help maintain comfortable and smooth ride characteristics, even with load variances.

For a more performance-oriented feel, Lumina LTZ models feature a Ride and Handling Suspension as standard equipment. To accommodate for high performance driving, this suspension features:

- **FOUR-STAGE FRONT STRUT VALVING** allow a fine degree of ride control over a wide range of suspension movement.
- **34MM FRONT AND 20MM REAR STABILIZER BARS** that further reduce vehicle body lean while cornering.

Steering

For precise control in demanding driving conditions, power-assisted rack-and-pinion steering is standard on all Lumina models. This system features a 15.7:1 ratio for quick steering response.

Brakes

Lumina Sedan and LS models have front disc/rear drum brakes with standard power assist. 4-wheel disc brakes are standard on Lumina LTZ.

GM's ABS VI 4-wheel antilock brake system is standard on LS and LTZ models and optional on Lumina Sedan. Some things to keep in mind about ABS:

- ABS helps maintain steering control during severe braking situations by reducing wheel lockup on most slippery surfaces. All the driver has to do is maintain pressure on the brake pedal and steer the vehicle.
- ABS adjusts brake pressure by modulating the brakes several times per second, a rate even most skilled professional drivers cannot attain physically.
- The system modulates the brake-line pressure at the wheels. Drivers should not "pump" the brakes in emergency braking situations. Rather, they should maintain constant pressure on the brake pedal, allowing the system to work effectively.

Wheels and Tires

Lumina Sedan:

- Standard 15" silver bolt-on wheel cover and P205/70R-15 blackwall touring tires.

Lumina LS:

- Standard 16" aluminum wheel and P225/60R-16 blackwall touring tires (optional on Sedan).

Lumina LTZ:

- Standard 16" machined-face aluminum wheel with silver bowtie center cap and 225/60R-16 Goodyear Eagle RS-A performance tires.

LUMINA

History
(by model year)

Introduced in spring 1989 as a 1990 model.

1991 — Lumina Z34 Performance Coupe introduced with new 210 hp, Twin Cam, 3.4L V6 engine.

1992 — Euro 3.4 Sedan and Special Service models introduced; ABS VI system became standard on Euro and Z34 and optional on Coupe and Sedan.

1993 — 4T60-E 4-speed automatic transmission introduced.

1995 — All-new second-generation Lumina was introduced and set sales record for new model year. This model included driver and front-passenger air bags as standard equipment.

1996 — Lumina again set new sales record. A new integral child safety seat was made available, along with optional dual-zone temperature controls. Other additions included optional leather rear seating surfaces, extended-life engine coolant and OBD II.

1997 — Lumina LTZ model introduced with unique exterior trim. New power sliding sunroof was made available on LS and LTZ models. Change Oil Soon indicator was introduced, so drivers know when to get an oil change.

1998 — Lumina LTZ received a higher level of standard performance features including: the 3800 Series II V6 engine, 4-wheel antilock disc brakes, machined-face 16" aluminum wheels, P225/60R-16 Goodyear Eagle RS-A performance tires, the Ride and Handling Suspension and Custom Cloth bucket seats with center console and cup holder.

Chevrolet International

The Lumina is sold in other countries besides the U.S. In many cases, changes are made in the vehicle's specifications to meet the unique demands of those markets and/or comply with local regulations. Additionally, these products sometimes fill a very different role in non-U.S. markets. If you need to know what the differences are, in specifications or marketing strategies, in any given country, please look in the Chevrolet International section of this publication to identify the right GM person to contact for that kind of information. Chevrolet Communications (U.S.) does not have those details.

Affinity Relationships

Because Chevrolet offers the most comprehensive lineup of cars and trucks of any automotive manufacturer, it goes without saying that there is a product for virtually everyone, whatever their needs. From the bass fisherman who needs a reliable truck to tow his fishing boat, to the soccer mom who needs a dependable van to get the team to the fields, Chevrolet can offer a vehicle to fit anyone's lifestyle.

With this in mind, Chevrolet created what has come to be known as "Affinity Marketing." Through it, Chevrolet has developed relationships with over eighty lifestyle organizations, sporting groups and spokespeople that represent the image of Chevrolet cars, trucks and the people who drive them. These relationships help Chevrolet market its products and services while offering marketing support to groups like the United States Figure Skating Association and Ducks Unlimited. Affinity Marketing also builds relationships with individuals. These people, like country music start George Strait, reflect the Chevrolet vision of excellence.

Lumina has affinity relationships with:

- United States Figure Skating Association and the U.S. Figure Skating Team
- U.S. Youth Soccer.

For more information, call 1-800-CHEVY-MI.

Genuine Customer Care

Chevrolet owners are covered by Genuine Customer Care, a comprehensive owner protection plan that includes the following:

New Vehicle Limited Warranty

This warranty is for GM vehicles in the United States. Owners should see their Chevrolet dealer for complete terms and conditions of this New Vehicle Limited Warranty. Items covered for 3 years or 36,000 miles* include:

- The complete vehicle
- Tires
- Towing to the nearest Chevrolet dealership
- Sheet-metal coverage
  - — Corrosion coverage
  - — Rust-through coverage†
- Repairs made to correct any vehicle defect
- No charge for most warranty repairs.

*Whichever comes first. For manufacturer defects.
†Six years or 100,000 miles, whichever comes first.

Courtesy Transportation

Retail customers who purchase or lease a 1999 Chevrolet car or truck are eligible for Courtesy Transportation when their vehicles are left at a participating dealership for repairs covered under the 3-year/36,000-mile New Vehicle Limited Warranty. Courtesy Transportation, at participating dealerships only, may include shuttle service, expense reimbursement or, if the repairs require leaving the vehicle overnight, a vehicle rental. Actual services may vary at the election of the participating dealer. Owners should see their dealer for details.

ROADSIDE ASSISTANCE*

Roadside Assistance service is provided through a toll-free 800 number, 24 hours a day, 365 days a year. Roadside Assistance advisors can assist with minor mechanical concerns over the phone or coordinate a variety of services through professional service providers.

Basic Care provides:

- Toll-free access — 1-800-CHEV-USA
- Free towing to closest dealer for warranty repairs
- Basic over-the-phone technical advice
- Dealer services at reasonable costs (i.e., wrecker services, locksmith/key service, glass repair, etc.).

Courtesy Care applies for 3 years/36,000 miles and provides:

- Basic Care services
- Free locksmith/key service (when keys are lost on the road or locked inside)
- Free flat tire change service
- Free fuel delivery
- Free non-warranty towing
- Free jump start.

*Roadside Assistance membership is free. Some services may incur costs. Courtesy Care is available to retail, retail lease and corporate lease customers operating 1994 and newer Chevrolet vehicles for a period of 3 years/36,000 miles. All Courtesy Care services and associated costs must be prearranged by Chevrolet Roadside Assistance or dealer service management and must be driver-initiated. Basic Care and Courtesy Care are not part of or included in the coverage provided by the New Vehicle Limited Warranty. Chevrolet reserves the right to modify or discontinue Basic Care and Courtesy Care at any time. Owners should see their dealer for complete details of the Chevrolet Roadside Assistance Program.

Important — a word about this document: We have tried to make this document as comprehensive and factual as possible. We reserve the right, however, to make changes at any time, without notice, in colors, materials, equipment, specifications, models and availability. Some information may have been updated since the time of posting in June, 1998.

A note about Next Generation air bags: Always use safety belts and proper child restraints, even with Next Generation air bags. See owner's manual for more safety information.

1999 LUMINA FEATURE AVAILABILITY

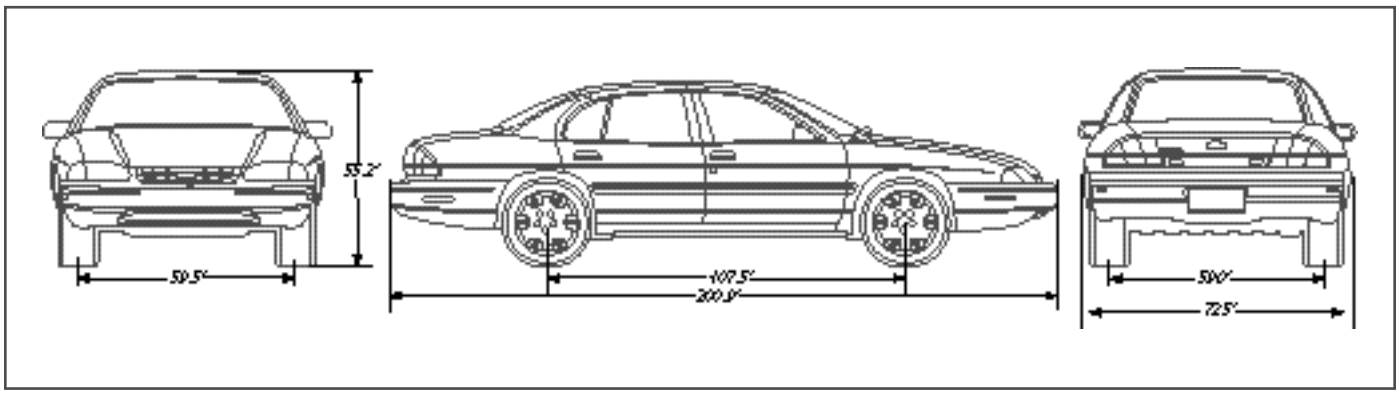
	Lumina	Lumina LS	Lumina LTZ
INTERIOR			
Air Bag – Driver and Right Front-Passenger[1]	S	S	S
Air Conditioning – with CFC-Free Refrigerant	S	S	S
Cargo Net – Luggage-Area	O[2]	S	S
Child Security Rear-Door Locks	S	S	S
Defogger – Electric Rear-Window	O	O	O
Door Locks – Power	S	S	S
Glass – Tinted, Solar-Ray	S	S	S
Lights, Interior – Delayed Entry/Exit with Theatre Dimming	S	S	S
Low Engine Oil Level and Oil Wear Indicator Monitors	S	S	S
OnStar System – Dealer Installed	O	O	O
PASS-Key II Theft-Deterrent System	S	S	S
Remote Keyless Entry System	O[2]	O[2]	O
Scotchgard™ Protection	S	S	S
Seats – 6-Way Power, Driver	O	O	O
– Cloth, 60/40 Split-Bench, Front	S	NA	NA
– Custom Cloth, 60/40 Split-Bench, Front	O	S	NA
– Custom Cloth Front Buckets with Console	NA	NA	S
– Leather Seating Surfaces, 60/40 Split-Bench, Front	NA	O[2]	NA
– Leather Seating Surfaces, Front Buckets with Console	NA	NA	O[2]
Speed Control – Electronic	O	O	O
Steering Column – Tilt-Wheel™	S	S	S
Steering Wheel – Leather-Wrapped	NA	O[2]	O[2]
Sunroof, Electric Sliding	NA	O[2]	O[2]
Stereo – AM/FM	S	NA	NA
– AM/FM with Cassette Player with Premium Speakers	O	S	S
– AM/FM with CD Player with Premium Speakers	O	O	O
– Steering Wheel Radio Controls	NA	O[2]	O[2]
Temperature Controls – Driver and Front-Passenger	NA	O	O
Trunk – Power Opener	O[2]	O[2]	O[2]
Windows – Power with Driver's Express-Down Feature	O	S	S
Wipers – Intermittent Variable Windshield	S	S	S
EXTERIOR			
Daytime Running Lamps with Automatic Exterior Lamp Control	S	S	S
Mirrors – Dual Black Sport, LH Remote	S	NA	NA
– Dual Black Remote Electric	O[2]	S	NA
– Dual Body-Color Remote Electric	NA	NA	S
Spoiler – Rear Decklid	NA	NA	S
Tires – P205/70R-15 All-Season	S	NA	NA
– P225/60R-16 All-Season	O[3]	S	NA
– P225/60R-16 Goodyear Eagle RS-A Performance	NA	NA	S
Wheel Covers – 15" Bolt-On	S	NA	NA
Wheel – 16" Aluminum	O[4]	S	NA
– 16" Machined-Face Aluminum	NA	NA	S
FUNCTIONAL			
Brakes – 4-Wheel AntiLock (ABS)	O	S	S
– Power, Front Disc/Rear Drum	S	S	NA
– Power, Four-Wheel Disc	NA	NA	S
Engine – 3100 V6 SFI	S	S	NA
– 3800 Series II V6 SFI	NA	NA	S
Fuel Tank – 16.6-Gallon Capacity(approx.)	S	S	S
Suspension – 4-Wheel Independent	S	S	S
– Ride and Handling	NA	NA	S
Transmission – 4-Speed Electronically Controlled Automatic	S[5]	S[5]	S[6]

S — Standard. O — Optional (some options may be available only as part of a Preferred Equipment Group). NA — Not Available.

1 Always use safety belts and proper child restraints, even with Next Generation air bags. See the owner's manual for more safety information. 2 Requires PEG 1SB or 1SD. 3 Requires optional 16" aluminum wheels and PEG 1SB. 4 Requires optional P225/60R-16 tires and PEG 1SB. 5. 4T60-E transmission. 6. 4T65-E transmission.

C8CHM0312 — 99 PRODUCT INFORMATION GUIDE — 99 LUMINA PIG BACKYARD — PAGE 16 — Step 2 — Disc # — MAY1, 1998 — **REGIONAL: 99 PIG BACKYARDS**

ART DIRECTOR: PHIL FOSTER — 7391 — TRAFFIC: JEFF AISTHORPE — 7106



MODEL AVAILABILITY

Lumina Sedan, Lumina LS Sedan and Lumina LTZ Sedan	
EPA vehicle class	Midsize
Assembly	Oshawa, Ontario, Canada

DIMENSIONS & CAPACITIES (inches/millimeters, unless otherwise noted)

Exterior Dimensions	
Wheelbase	107.5/273.0
Length (overall)	200.9/5104.0
Width (overall)	72.5/1841.0
Height (overall)	55.2/1402.1
Tread — front	59.5/1512.0
Tread — rear	59.0/1498.6
Interior Front Dimensions	
Headroom	38.4/975.0
Legroom	42.4/1077.0
Shoulder room	58.4/1483.0
Hip room	55.4/1407.0
Interior Rear Dimensions	
Headroom	37.4/949.0
Legroom	36.6/930.0
Shoulder room	58.4/1457.5
Hip room	55.3/1404.6
Capacities	
Passenger capacity (cu. ft./liters)	6 (5 with LTZ)
Passenger index (cu. ft./liters)	100.5/2853.5
Cargo index (cu. ft./liters)	15.5/440.1
Fuel tank capacity (gal./liters)	16.6/62.8
EPA interior index (cu. ft./liters)	116.0/3292.6
Curb weight (lbs./kg, est.)	3330/1511 (Lumina Sedan) 3372/1530 (Lumina LTZ)
Engine oil (quarts/liters)	4.0/3.8
Engine coolant (quarts/liters)	11.3/10.7 (3100 V6) 11.7/11.1 (3800 V6)

STEERING

Type	Power rack-and-pinion	
Ratio (overall)	15.7:1	
Turns stop-to-stop	2.60/2.26 with 16" tires	
Turning diameter curb-to-curb (ft./m)	36.7/11.2 (standard)	39.0/11.88 (LTZ)
Turning diameter wall-to-wall (ft./m)	42.4 /12.91 (standard)	44.5/13.56 (LTZ)

BRAKES

Type	Power front disc rear drum with 4-wheel ABS (optional on Lumina Sedan), power front and rear disc on Lumina LTZ	
	U. S. STANDARD	METRIC
Gross lining, front/rear	26.0/61.4 (18.4 with LTZ disc) sq. in.	167.8/396.0 (116.1 with LTZ disc) sq. cm.
Front disc rotor outer-working diameter x thickness	11.1 x 1.0 in.	281.9 x 25.4 mm
Rear drum diameter x width, front/rear	8.86 x 1.8/11.0 x .43 (with LTZ disc) in.	225.0 x 45.7/279.4 x 10.9 (with LTZ disc) mm
Total swept area, front/rear	180.6/98.6 (160.3 with LTZ disc) sq. in.	1165.2/636.2 (1034.3 with LTZ disc) sq. cm.

ENGINES

Model	Standard on all models	Lumina LTZ
Type	3100 V6 SFI	3800 V6 SFI
Block	Cast iron	Cast iron
Cylinder head	Cast aluminum	Cast iron
Hydraulic lifters	Yes/Roller	Yes/Roller
Bore & stroke (in.)	3.51 x 3.31	3.80 x 3.40
(mm)	89.0 x 84.0	96.5 x 86.4
Cam drive	Chain	Chain
Redline (RPM)	6000	6000
Displacement (liters/CID)	3.1/191	3.8/231
Compression ratio	9.6:1	9.4:1
Fuel induction	SFI	SFI
Horsepower/kW @ engine RPM	160 @ 5200/119 kW @ 5200	200 @ 5200/149 kW @ 5200
Torque/N-m (lb.-ft.@ engine RPM)	185 @ 4000/251 N-m @ 4000	225 @ 4000/305 N-m @ 4000
Exhaust system	Stainless steel	Stainless steel
Tailpipe(s)	Single	Dual
Ignition system	Direct ignition system	Direct ignition system
Delcotron alternator rating (amps)	100	105
Battery (SAE capacity rating, cca)	600	690
Recommend fuel (unleaded)	87 octane	87 octane

TRANSMISSIONS

Model	4-speed automatic (4T60-E)	4-speed automatic (4T65-E)
Engine	3100 V6	3800 V6
Type	FWD	FWD
Layout	Transverse	Transverse
Gear ratios:		
1st	2.92	2.92
2nd	1.57	1.57
3rd	1.00	1.00
4th	0.71	0.71
Reverse	2.39	2.39
Final-drive ratio	3.29	3.29

CHASSIS

Chassis	
Structure/frame	Unitized body frame
Body material	Steel
Suspension — Front	
Type	Independent MacPherson strut with coil spring and stabilizer bar, one-piece “A” arms
Stabilizer bar design/diameter (mm)	Linkless/32 (34 on LTZ)
Suspension — Rear	
Type	Independent MacPherson strut with coil spring and stabilizer bar, lateral links attached to body cross member trailing arms
Stabilizer bar design/diameter (mm)	Link/16 (20 on LTZ)

MILEAGE/PERFORMANCE*

Powertrain	3100 V6 SFI		3800 V6 SFI	
Mileage:	MPG	litres/100 km	MPG	litres/100 km
City	20	11.8	19	12.4
Highway	29	8.1	30	7.8
Combined	23	10.2	23	10.2
Estimated cruising range:	mi.	km	mi.	km
City	332	534	315	507
Highway	481	774	498	801
Combined	382	615	382	615

*Based on projected 1999 EPA fuel economy estimates.

TRAILERING INFORMATION

Trailer classification	Light
Gross trailer weight (lbs/kg., up to)	1000/454
Max tongue load (lbs./kg)	100/46

WHEELS & TIRES

Wheel type/size	Steel 15" x 6" (Lumina Sedan)/aluminum 16" x 6.5" (Lumina LS and LTZ)
Tire type	All-season steel-belted radial
Tire size	P205/70R-15 (Lumina Sedan)/P225/60R-16 (Lumina LS)/P225/60R-16 Goodyear Eagle RS-A (LTZ)
Spare size	T125/70D-15

All specifications are preliminary and subject to change.

1999 LUMINA POLICE SPECIFICATIONS

GENERAL

Model	4 Door
Drive	2 Wheel Front

EXTERIOR

Wheelbase	107.5
Overall length	200.9
Overall width	72.5
Overall height	55.2
Tread front	59.5
Tread rear	59.0

FRONT COMPARTMENT

Head room	38.4
Shoulder room	58.4
Hip room	55.4
Leg room (maximum)	42.4

REAR COMPARTMENT

Head room	37.4
Shoulder room	57.4
Hip room	55.3
Leg room (minimum)	36.6

LUGGAGE COMPARTMENT CAPACITY

Cargo volume (with space saver) (cu. ft.)	15.5
EPA passenger compartment volume index (cu. ft.)	100.5

FUEL TANK CAPACITY

(gal. approx.)	16.6

EPA FUEL ECONOMY RATINGS*

	City/Highway
3.8L Engine	19/30

*1999 Projected EPA estimates.

ALTERNATOR

Type	CS-144
amps	140
amps @ idle (park/neutral)	104

Features:

- Sealed high capacity bearings
- Transient voltage spike protection
- Vehicle low voltage idle boost compatible
- Reduced RFI

*NOTE: Dimensions are in inches unless otherwise specified.

ENGINE

Type	(L36) V6
Displacement: Liters (cu. in.)	3.8 (231)
Horsepower/RPM	200 @ 5200
Torque/RPM	225 @ 4000
Induction system	SFI
Compression ratio	9.4:1
Exhaust	Dual

TRANSMISSION

Automatic with overdrive	4-speed

AXLE

Ratio	3.29

BRAKES

Dual hydraulic, power system	Disc/disc
Front disc diameter x thickness/ swept area (sq. in.)	11.1" x 1.0"/180.6
Rear disc diameter x thickness/ swept area (sq, in.)	11.0"x.43"/98.6
Total swept area (sq. in.)	340.9

TIRES

Type	All-season "H" speed rated
Size	P215/65R15

WHEELS

Type	Steel
Size	15 x 6

CHASSIS

Frame	Unitized body
Front suspension	Independent – MacPherson strut coil spring & stabilizer bar
Rear suspension	Independent tri-link MacPherson strut, Coil spring over strut & stabilizer bar
Steering type	Power rack & pinion
Steering ratio (center/stop)	15.7:1

BATTERY

Type	Maintenance free
BCI group size	75
Volts	12
Amp hour rating	54
Cold cranking amps @ 0°F (-18° C)	690
Reserve capacity @ 80°F (27° C)	90

Features:

- Maintenance-free design
- Built-in hydrometer
- Reinforced polypropolyene case
- Built-in flame arrester
- Side mounted terminals